PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference		FOR FURTHER ACTION	See Form PCT/IPEA/416			
P611008/WO/1		International filing date (day/month/year)	Priority date (day/month/year)			
International application No. PCT/EP2004/003640			08.04.2003			
		06.04.2004	08.04.2003			
Applicant	issincation (IPC) or nati	onal classification and IPC				
	R DEUTSCHLA	ND GMBH				
1. This report is under Article	s the international prelimate 35 and transmitted to the	ninary examination report, established by e applicant according to Article 36.	this International Preliminary Examining Authority			
2. This REPOR	T consists of a total of	5 sheets, incl	luding this cover sheet.			
	also accompanied by A					
a. 🛛 (3	sent to the applicant and	to the International Bureau) a total of <u>3</u>	sheets, as follows:			
× = = = ×	A sheets of the descri	otion, claims and/or drawings which have b	een amended and are the basis for this report and/or see Rule 70.16 and Section 607 of the Administrative			
	sheets which super the disclosure in the Box.	sede earlier sheets, but which this Authorit e international application as filed, as indi	y considers contain an amendment that goes beyond cated in item 4 of Box No. I and the Supplemental			
ь. 🗌 7	sent to the International	Bureau only) a total of (indicate type and n	number of electronic carrier(s))			
`			, containing a sequence listing and/or tables			
	ated thereto, in computeration 802 of the Admini		supplemental Box Relating to Sequence Listing (see			
4. This report of	contains indications rela	ing to the following items:				
⊠ _{Box}	No. I Basis of th	e report				
Box	No. II Priority	•				
1 =	•	lishment of opinion with regard to novelty,	inventive step and industrial applicability			
	Box No. IV Lack of unity of invention Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement					
Вох	No. VI Certain do	cuments cited				
Box	No. VII Certain de	fects in the international application				
	Box No. VIII Certain observations on the international application					
Date of submission of		Date of completio	n of this report			
Date of Submission of	i ine demand	Date of completio				
	dress of the IPEA/EP	Authorized office	-			
Name and mailing ad			•			

Translation

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/003640

Box No. I	Basis of the report		
	regard to the language, this report is based on the internation ated under this item.	al application in the language in w	rhich it was filed, unless otherwise
	This report is based on translations from the original language which is the language of a translation furnished for the purpo	ge into the following languageoses of:	,
	international search (Rule 12.3 and 23.1(b))		
	publication of the international application (Rule 12.4)	1	
	international preliminary examination (Rule 55.2 and/o		
recei	regard to the elements of the international application, this is iving Office in response to an invitation under Article 14 are report):	eport is based on (replacement she referred to in this report as "ori	eets which have been furnished to the ginally filed" and are not annexed to
	the international application as originally filed/furnished		
\boxtimes	the description:		
	pages1-11		as originally filed/furnished
	pages*	received by this Authority on	
	pages*	received by this Authority on _	
\boxtimes	the claims:		
	nos.		as originally filed/furnished
	nos.*	as amended (together	with any statement) under Article 19
	nos.* 1-9	received by this Authority on	02.10.2004 with letter of 30.09.2004
	nos.*	received by this Authority on	
	the drawings:		
	sheets 1/3-3/3		as originally filed/furnished
	sheets*	received by this Authority on	
	sheets*	received by this Authority on	
	a sequence listing and/or any related table(s) - see Supplem	nental Box Relating to Sequence Li	isting.
3.	The amendments have resulted in the cancellation of:		•
,	the description, pages		
1	the claims, nos.		
		-	
1			
4.	This report has been established as if (some of) the ament they have been considered to go beyond the disclosure as f	dments annexed to this report and	listed below had not been made, since
	the description, pages		
	the claims, nos.		
	the sequence listing (specify):		
	any table(s) related to sequence listing (specify):		
* If it	tem 4 applies, some or all of those sheets may be marked "su		

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International application No.
PCT/EP2004/003640

Box			ticle 35(2) with regard to novelty, inventive step or industrial applicability; porting such statement	
1.	Statement			
	Novelty (N)	Claims	1-9	_ YES
		Claims		NO
	Inventive step (IS)	Claims	1-9	YES
		Claims		NO
	Industrial applicability (IA)	Claims	1-9	YES
		Claims		_ NO
1				

- 2. Citations and explanations (Rule 70.7)
 - This report makes reference to the following document:
 - D1: US 3 880 551 A (KISOVEC ADRIAN V), 29 April 1975 (1975-04-29)
 - 2. Independent claim 2

Document D1 is considered to constitute the prior art closest to the subject matter of claim 2 and discloses (the references in parentheses are to that document) a hingeless rotor (figure 9) having the following features of claim 2:

- a rotor shaft (70)
- a torque transmission element (68) secured against rotation to the rotor shaft,
- at least one plate-like rotor head element (62) through which the rotor rotational axis extends (figure 9) and
- which has two different groups of arms (64, 72)
 of which the first group comprises flexible,
 centrifugal force-bearing rotor blade connecting

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

arms (72), a rotor blade (74) being connectable to each of the connecting arms (figure 9), and

• of which the second group comprises flexible, centrifugal force-free, rotor shaft connecting arms (64) with which the plate-like rotor head element is secured against rotation to the rotor shaft by the torque transmission element (figure 9).

The subject matter of claim 2 therefore differs from the closest prior art in that the rotor blade connecting arms and the rotor shaft connecting arms extend in different planes, relative to the rotor rotational plane, but in the same radial directions.

The subject matter of claim 2 is therefore novel (PCT Article 33(2)).

The present invention can therefore be considered to address the problem of providing an alternative arrangement of rotor blade and rotor shaft connecting arms.

Document D1 does not show or suggest a solution to the above-mentioned problem which would correspond to the present invention.

Claim 2 therefore involves an inventive step (PCT Article 33(3)).

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

3. Independent claim 1

Claim 1, which is drafted as an independent claim, contains all the features of claim 2, and therefore also meets the PCT novelty and inventive step requirements.

4. Dependent claims

Claims 3-9 are dependent on claim 1 or 2 and therefore also meet the PCT novelty and inventive step requirements.

Observations

- 5. Claim 1 is drafted as an independent claim yet contains all the features of claim 2.

 Consequently, it should contain in its preamble a reference to claim 1, i.e. it should be drafted as a claim dependent on claim 2 (PCT Rule 6.4(a)).
- 6. Contrary to PCT Rule 5.1(a)(ii), the description does not cite document D1 or indicate the relevant prior art disclosed therein.